Play Space Planning

Alberta

RECREATION AND PARKS

Recreation Development Division

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INTRODUCTION

Congratulations!

If you've reached the stage of obtaining this brochure, you've already given a fair amount of thought to the need for a play space in your community. You may have spoken with parents, community organizers, teachers and other concerned individuals, and have a fairly good reading on the level of support for the idea of building a play space. You might have a rough idea of what the play space should look like when it's finished.

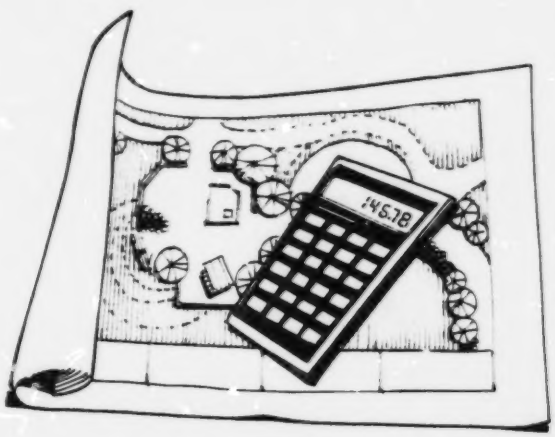
You may have a vision of a summertime scene, with a group of children happily swinging on swings, sliding on slides, building castles in the sand. To achieve this vision, you'll need to do more planning than working!

If you stop to think for a moment, you'll probably remember seeing a play space on just such a summer day - swings, slides, sand and other play equipment - all standing empty.

You may also remember seeing an unlikely area - a corner lot - filled to the brim with noisy, happy children at play.

Why would children avoid one singly perfect play space in favour of a place unplanned and unimproved by caring adults?

The answer lies in the word "planning". To develop a play space that attracts children and fulfills their varied needs, adults must undertake the planning process with care, and with two separate kinds of vision.



1. The Adult Vision

The play space must be seen from the adult point of view, and consideration given to such practical concerns as location, equipment, community resources, initial costs and long-term maintenance requirements, the safety of children and the convenience of parents. Of course, other factors such as design of play space, weather, ages of children and types of play are important too. These functional concerns are discussed further

along in this manual, and in the other manuals in the Focus Series: Play Space Construction, Play Space Maintenance and Play Space Safety?

2. The Child's Vision

The play space must also be designed to appeal to children - so the planning process must be approached with a child's vision in mind. (Luckily, we were all once children, so this task should prove enjoyable!)

When we went out to play, we wanted to feel a sense of adventure and mystery, along with a certain sense of security of being cared for and protected. We wanted a place where we could meet other children, or daydream in solitude. We wanted to be able to test ourselves and find our physical limits - indeed, almost every "grown-up" remembers the first time he or she found the courage to attempt the challenge of the "monkey bars" ... fell ... discovered the world did not come to an end ... tried again ... and found joy in succeeding.

We found our limits, and felt the thrill of pushing past them. In play, children expand the borders of their lives.

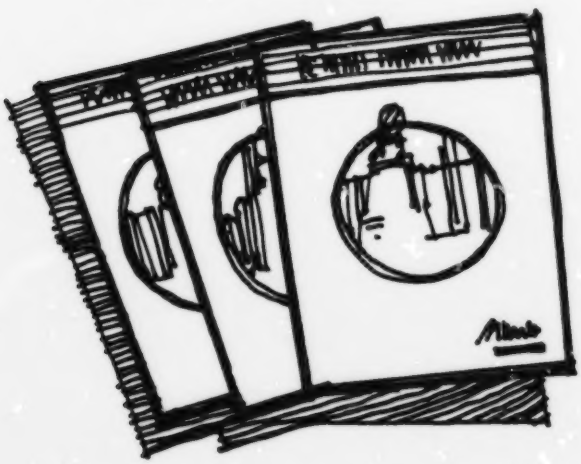
3. The Goal

The equipment has changed, but the basic drives of finding excitement, finding friends, finding magic, finding out more about the world and ourselves - none of these will ever alter.

The challenge your group now faces is that of creating a play space that brings both kinds of vision - functional and fun - into clear, sharp focus.

This manual outlines all the factors for your group to consider when you plan the play space. It also introduces such long-term considerations as building the play space and maintaining the play space. However, as these topics are all worthy of separate discussion, they are covered in more detail in the other "Focus" manuals. You may obtain these manuals, at no charge, from our Regional Recreation Office or from:

Outdoor Recreation Facilities Section
Community Recreation Branch
Alberta Recreation and Parks
9th Floor, Standard Life Centre
10405 Jasper Avenue
Edmonton, Alberta
T5J 3N4
Telephone: 427-4471



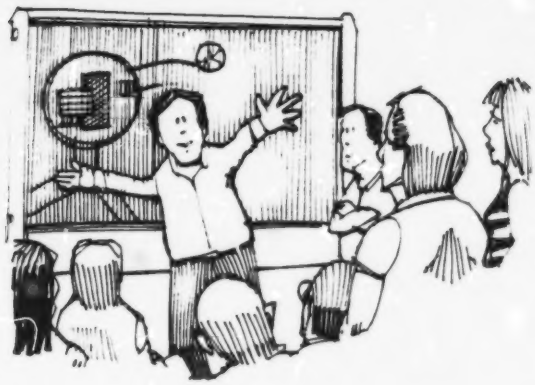
PLANNING THE PLAY SPACE

Step by Step, Your Vision Comes in Focus

The process of planning the play space is much like taking a journey. Before you set out, you know your destination, you plan the best possible route, look at possible problems, and make decisions in advance to be sure you have an enjoyable and trouble-free trip.

1. Accept

Start your journey by accepting the task as a challenge. Take a little time to review the concept of play - why it's important and how a well-planned play space can enhance this essential activity for children. Sure, creating your play space will involve time and effort - but with the right attitude it will be fulfilling to see a viable plan take shape.



2. Organize

Review all the in's and out's of the project. Form a planning committee, choose a leader, and decide who should handle specific tasks. (You may wish to use the Planning Checklist on page 37 as a guide to review all the elements to consider.) Your group should review the resources you already have - money, materials and people - and those you will need to acquire. Then you can decide how to overcome any problems you may encounter in building or maintaining the play space. Will you need to involve more people in your group - who will contact the local recreation board or director to ensure the project won't duplicate another one already underway? Who should be in charge of obtaining more information on design options and funding sources?

3. Define

Have your group agree on a carefully-worded objective. Even though this may seem to be obvious, by defining the goal at the outset you'll be sure everyone's working in the same direction, and no one will be surprised or disappointed with the plan. After all, there are almost as many kinds of play spaces as there are kinds of play - the possibilities are virtually endless! There are practical considerations, too. Will your group hire a play space designer to choose the equipment and plan the site, or will you tackle the project on your own? Will you purchase ready-made equipment, or build it yourselves?

4. Create

This is the part people enjoy most. Here, have an open "brainstorming" session! Let ideas pour forth on the kind of play space you'd like to see and how you can achieve it. It's also a good idea to go out into the community for ideas on the play space. You could distribute questionnaires, hold interviews, organize drawing exercises or model-making sessions. Of course, you'll want to make sure you have suggestions and creative ideas from your most important "clients" - the children in your community! To learn what they'd like to see and do in the play space, you can approach them individually, or visit daycare centres and schools in your community.

Make a list of all suggestions, even if they don't seem particularly practical at the time. No criticizing allowed!

5. Select

Go through the list of suggestions, discussing each one, eliminating those which are impractical or impossible. (This is where you may be glad you included the far-fetched ideas. They often spark other more practical and more valuable suggestions.)

Using this list of activities desired by the community, you can begin to draw up your play space program. The program should identify priorities for the play space, depending on the needs of your "client groups", the resources available to you (funds, people and materials) and what the site selected can support.

6. Implement

Finally! You can draw up your plan of action. At the top of the list will probably be the need for work parties to:

- Act as liaison between the local recreation board and the community.
- Investigate sites.
- Recruit new members for committees.
- Raise money and apply for grants.
- Obtain information on the construction and maintenance of play spaces.

Once you have decided on a program, have set priorities, have selected and analyzed your site, you are ready to develop the play space plan. At this point, design consultants can help you translate your ideas into plans. We also hope you'll contact us at the Outdoor Recreation Facilities Section, to arrange for a representative to attend your next meeting. One of our staff will attend and help you to develop and refine your plans. We can also provide audio visual presentations and other information on funding, designing, building and maintaining play spaces.

7. Evaluate

Review the strengths and weaknesses (if any) of your play space plan. Has an important area been left out - does anyone know a better way of approaching any of the tasks - is everyone comfortable with the plan? Make any necessary revisions, and you've launched the play space planning process.

Now you can proceed with confidence to learn more about the concept of play, the types of play and the many ways in which children play!

WHAT IS "CHILD'S PLAY"?

Understanding the Concept of Play is Critical

When we want to describe something as being easy or simple, we call it "child's play". But the truth is that most forms of a child's play are more difficult than many forms of adult work. Play is - and should be - challenging:

> "It is the way in which the child learns what no one can teach him. It is the way he explores and orients

himself to the actual world of space and time, of things, animals, structures and people. Play is the child's work."

Lawrence K. Frank

Clearly, designing a play space involves more than deciding how to set up equipment on a site. You're facing the challenge of creating a space to encourage play which is voluntary, enjoyable, educational and explorational. Once you understand how important play is to the development of the child as an individual, you can achieve an effective play space.

Where should you begin? The logical place to start is with the definitions of the four types of play, and the five methods of play.

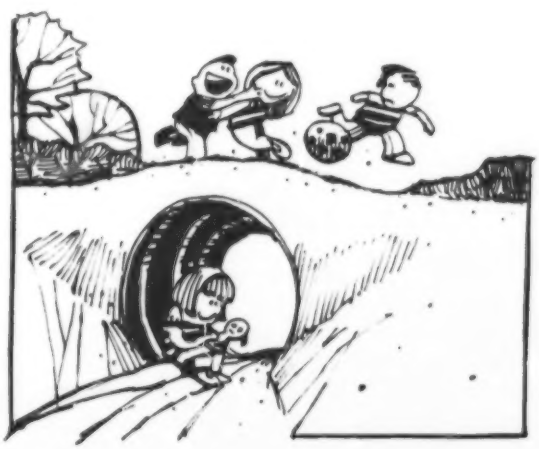
Types of Play

The importance of play has become a topic of close study over the past few decades. Research by educators, recreation specialists, psychologists and a host of other professionals is now available. It can all be useful to you when you're planning a play space.

Play is important work! It is also highly complex. In fact, there are four distinct types of play:

1. Creative Play

As the name implies, this type of play involves the child's creativity and imagination. The child manipulates and combines materials to create something that has meaning only to himself or herself. As an example, a cardboard box becomes a castle or a fort, a stick becomes a laser gun, a leaf becomes an extra-terrestrial being. This kind of play is important to preschoolers and to school age children as it encourages them to test their ideas and to create their own environments. Materials to encourage creative play should be provided in the play space, and might include sand, water, large building blocks, cardboard - even loose boards.



2. Quiet Play

Younger children, in particular, need to have a quiet area away from the noisy action areas. Here, they can play by themselves, daydream,

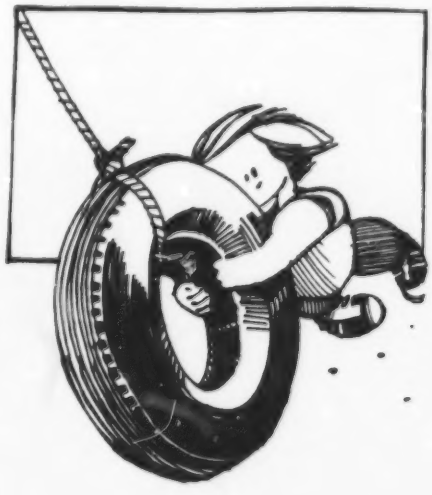
read or enjoy arts and crafts. A small, landscaped area with a bench or a table should be provided to encourage quiet play. Quiet play is important to the development of a child's emotional independence, self-understanding and concentration.

3. Social Play

Social play is especially important for preschoolers and school age children as it teaches them to communicate and to cooperate. The play space should encourage such social play activities as dramatic play and role playing. These range from "playing house" to setting off on a voyage to outer space. Equipment for this type of play might include structures with enclosed spaces, play houses, cubes, forts or treehouses. Equipment might also include structures which resemble familiar objects such as boats, cars or animals.

4. Physical Play

Physical play is and should be demanding, helping the child to strengthen his or her body. New experiences are encountered through physical play, when the child learns new skills and tests abilities. The child must overcome the environment both mentally and physically. However, planning must ensure that challenges are not dangerous, nor should they be too difficult. This could lead to injury, or to decreased self-



confidence and discouragement. Examples of physical play include swinging, running, jumping - even building tree houses.

Solitary play is important to the development of a child's emotional independence, self-understanding and concentration.

Methods of Play

To be effective, the play space should provide opportunities for all four types of play. It should also encourage the different ways in which a child plays alone, and the ways in which groups of children play together in supervised or in unsupervised situations. Each of these four types of play may be undertaken in a variety of ways:

1. Solitary Play - Where the child is alone, or plays alone in the midst of other activity.

2. Parallel Play - Where the child plays beside another child, rather than with another child. The focus may or may not be on the same object. In parallel play the child is exposed to ways in which others play, and may be motivated to undertake a new activity.

3. Individual Competitive Play - Play in which the child competes with others as an individual helps him or her to assess abilities and judge progress in seeing who can run fastest, jump highest or complete a task first.

4. Group Cooperative Play - This kind of play involves two or more children joining together to achieve a common goal. Effective communication skills, trust and sharing of tasks are essential for group cooperative play, which teaches leadership, problem-solving and decision-making.

5. Group Competitive Play - In this type of play, children form teams to play "against" one another. Through competition, the child learns cooperation, leadership, how to deal with conflict, how to compromise - even how to accept failure gracefully.

CONSIDER ALL YOUR "CLIENTS"

When designing the play space, you'll want to approach the process from the point of view of providing all the potential users, or "clients" with an attractive, diverse, functional and practical area. In fact, when you sit down to draw up a list of all your clients - the children and adults who will use or be affected by the play space - you may be surprised at how many people are involved! Your community as a whole must be considered first. Where are other play space facilities? Will this new area conflict with existing facilities or fill a gap?

What about the number of children in the area, their ages now, and their needs? If a play space in your community is long overdue, will you make the mistake of planning it for a large number of tots, only to find the majority of children are older? Remember that children grow up. The plan must take into account the needs of all ages of neighborhood children. As a general guideline to assist you in the planning and design process, the following list outlines the basic client groups to consider, and what each client group needs:

Toddlers: Children between two-and-half and four years of age are just beginning to explore the world beyond their homes. They need a safe area within the play space which is separated from the activities of the "big kids", where equipment is scaled down to their size. (Parents or adults usually accompany toddlers - they need an area where they can sit comfortably as they supervise.)

Preschoolers: Children between four and six are becoming more adventurous, need more challenging and diverse activity opportunities.

Grades One to Three: Between the ages of six and eight, activities organized by children or by play space leaders become more important. Equipment for more strenuous jumping, climbing and pulling should be provided for the expanding abilities of this group.

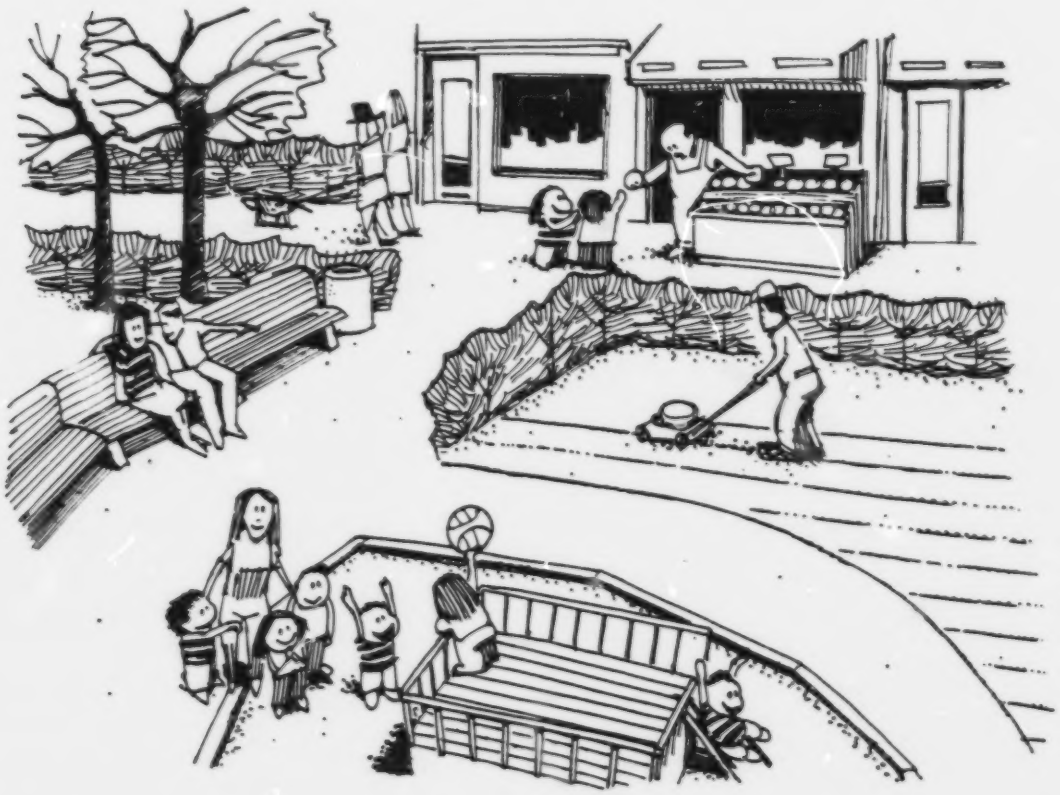
Grades Four to Six: Children between nine and eleven tend to travel further from home. To attract them to the safety of the play space, areas for a range of individual and group sports activities must be provided. (Bicycle racks are very important!)

Parents: Those who accompany children to the play space need to find benches or tables for comfortable seating. A parking area should be provided close to the play space for parents who live beyond walking distance of toddlers.

Neighbours: Should be approached at the outset of the planning process to secure their support. Are adults in nearby homes or merchants in nearby stores prepared to watch over the play space, and be alert for possible problems? Are they concerned about stray balls breaking windows, or high daytime noise levels? Can the design overcome these concerns?

Recreation Workers: Will summertime activities be coordinated by the local recreation department? Be sure facilities are designed to provide any space or house and any equipment the play leader may require.

Maintenance Workers: Even the most creative play space will have grass to be cut or snow to be removed. Plans must include considerations for maintenance activities and equipment.

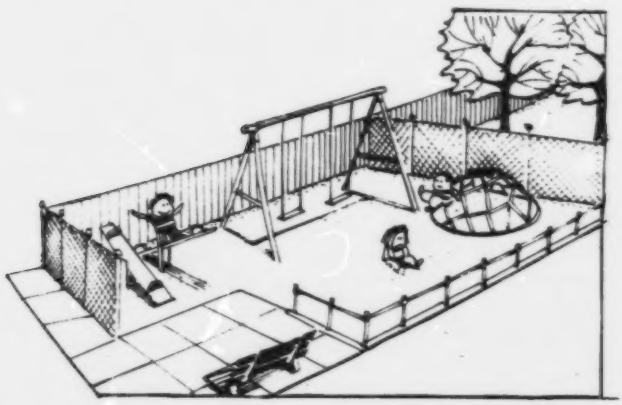


TYPES OF PLAY SPACES

You'll find trends and fashions in play space design, too. Tire playgrounds are just one example. Only a few years ago, they were so popular hardly anyone considered building anything else. Today, the tire play element is important only as one element within a more varied play space. Play spaces can also vary widely in terms of size, scope and scale. A backyard can be a functional play space - as can a neighbourhood sport field or an entire outdoor recreational complex. However, for the purposes of developing your design, think in terms of the overall concept you wish to achieve with the space. Will it be a traditional play space, a creative play space, an adventure play space or a mix of all ideas? To help you decide upon and refine your concept, three types of play spaces are described here:

1. The Traditional Play Space

A traditional "playground" is usually an area of open space covered with a combination of dirt, asphalt, grass and sand. It is generally flat, fenced, and has a few trees or shrubs. Play equipment consists of swings, slides, teeter-totters, a merry-go-round and some climbing apparatus. The traditional playground is designed for preschoolers as well as for school age children (up to age 12). However, traditional equipment is rarely scaled down to dimensions suitable for younger children. Generally, the equipment is designed with a single, preconceived idea for its use, such as swinging or climbing. Children may tire of the limited ways in which the equipment can be used and decide to use it in ways not intended by the planners - such as climbing the swings. This poses the dual threat of injury to the child and damage to the equipment.

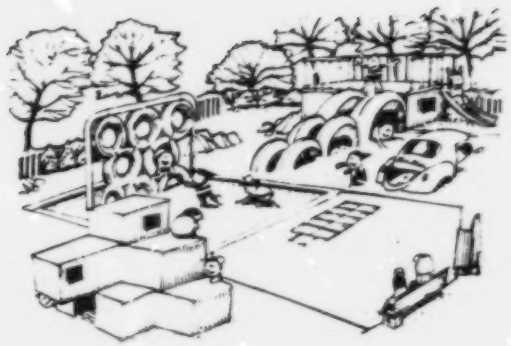


If leadership is provided, the leader generally offers additional activities such as games and crafts, rarely, if ever, relating the activities to the equipment.

The project may be the responsibility of the municipal recreation authority. However, it is often initiated by a community group which raises the initial funds to purchase the equipment. The community is usually not involved beyond this point as land, leadership, supplies and maintenance are supplied by the municipal recreation authority.

2. The Creative Play Space

This type of play space is usually built in an area which has the characteristics of a natural environment. It may be a treed space which features brush, grass, earth and possibly water. The area may include ravines and hills.



Play equipment is designed to encourage greater use of the child's imagination by offering greater play choice. It may be designed and built by a manufacturer or by members of the community using natural materials such as timber, telephone poles and other readily-available materials.

Creative play equipment appeals to all age groups of children. Preschoolers have more fun with creative play equipment as it is better suited to their capabilities than traditional equipment. The creative play space provides more opportunity for social, physical and creative play than does a traditional playground. Water and sand are used extensively. "Manipulative" equipment, which has moving parts such as hoists and pulleys, allows children to move, change, rearrange and create new play settings. The equipment is often abstract enough to allow the child's imagination to give it many forms. For example, a climbing structure may be a ship, a mountain, a house or a spacecraft.

If leadership is available, the leader may offer additional games and crafts activities, or may assist the children in acting out a pirate story with the equipment as ships and islands and the sand as the ocean.

Municipal recreation authorities may provide manufactured creative equipment as an alternative to traditional playground equipment. Most frequently, however, the project is initiated by a community group which raises the funds, "scrounges" the material, designs and builds the equipment. Land, leadership, supplies and maintenance are usually provided by the municipality.

3. The Adventure Play Space

Adventure playgrounds are gaining popularity in communities which can provide leadership on a regular basis. In adventure play spaces, children up to 16 years old are directed or guided by a leader. They experiment with earth, water, wood and fire, to see what they really do. Building materials such as scrap lumber, old telephone poles, rope, old car tires are transformed each day into elements within the play space.

Children use tools such as hammers, saws, nails, shovels and rakes to create forts, treehouses, gardens or other imaginative structures. The adventure play space is built by children - for children. Children learn skills, test

ingenuity and creativity. It is within the adventure play space that future architects, engineers and builders "begin their careers". However, as the area can be messy and noisy, it should be surrounded by a screen of trees or a solid wood fence. The area should be fenced and locked when not in use, and materials and tools kept within a locked equipment shed.

CHOOSING THE LOCATION

This step is worthy of a fair amount of time and research. The location of your play space is one of the most important factors in its long-term success. The play space shouldn't necessarily be constructed on the first piece of land available to you! Instead, you should select a site that will meet the needs of neighbourhood children and the other members of your "client groups".

Features to look for in the play space site are those that would have attracted you when you were growing up. These include trees and shrubs, ravines, streams, rocks or shallow ponds. While a flat, barren surface is not attractive to children or to adults in the community, it could be improved by adding trees, shrubs and earth mounds.

Practical questions to keep in mind when choosing a site:

1. Is the site easily accessible by foot? (Neighbourhood play spaces should be within .5 to 1 km (1/4 to 1/2 mile) of every home.)
2. Is it a safe distance from major traffic arteries, or will children have to cross busy streets?
3. Is the site adjacent to pedestrian routes children normally take?
4. Are there any existing facilities such as washrooms, building or fences which could be utilized in the play space?
5. Will the play space be compatible with existing adjacent land uses?
6. Is the location within sight of nearby residents and passers-by, to improve casual supervision?
7. Is the site large enough to accommodate the four types of play for the number and age group of the children? Does it offer room for future expansion?

Play space located close to elementary school, or residential street, area treed, hill suitable for winter activities, located next to well-used park.

Existing building offers washroom facilities and indoor crafts area, shallow stream provides additional play opportunities, site located well away from major traffic artery, space available for expansion if required.

PLANNING THE SITE

If a member of your group has planning, designing, construction or engineering experience, you are indeed fortunate. Enlist his or her assistance in developing plans for the site! There is much more to consider than the simple question of where to put play equipment.

Even if you have this kind of support (and especially if you don't) this is the time to get professional planning assistance.

To understand why this is so important, imagine that you have decided to build your own home. You know what you want, and you sketch out preliminary designs, but you won't actually start building until you've had an architect refine the drawings and provide you with working blueprints. The same principle applies here!

It is simply common sense to have a professional help you in achieving your goals. What are these? One is to blend the play space into the surrounding area. Others are to create a comfortable, safe, inviting and attractive place for children and adults. Here, the three main things to consider in planning the site are circulation, landform, and climate.

1. Circulation

The movement of people and vehicles can be helped (or restricted) through careful site planning. Circulation within the play space, as well as to and from the space, should be plotted with a view to current patterns as well as future movement patterns. Just a few of the elements to consider in planning the circulation patterns include:

- Play activities - areas for passive and active play by all ages of children, areas for individual and group movements.

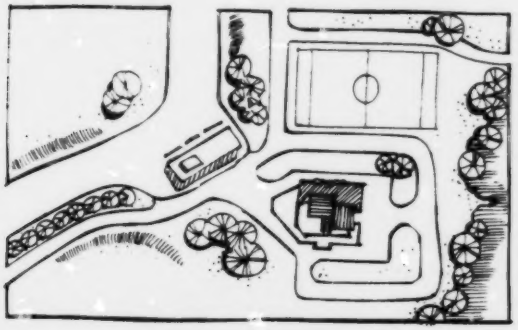
- Vehicular access - circulation patterns must account for visits by bookmobiles, drama vans and maintenance vehicles. On the other hand, the layout of the circulation system should discourage unwanted entry by vehicles. This may be achieved through level changes (steps), bollards (entry obstruction posts), or narrow entry paths.

- Pedestrian access - your play space will benefit from having multiple access points to ensure easy entry from all sides. This will encourage timid children to enter and will increase security within the play space.

- Control of play activity - circulation systems can control play behaviour. For example, you can achieve a sharp division between ages of

participants by combining multiple access points with separate pathways.

- Circulation patterns can also prevent collisions between children and moving pieces of play equipment.



2. Landform and Drainage

Landform

Landform (or landscaping) can be used to control internal organization, achieve pleasant visual effects and encourage play activities.

Site topography, complex and irregular surfaces and slopes create variety and conceal unsightly views. Earth mounds act as sound barriers and may be used to provide natural play areas for sliding, coasting and rolling.

Subtle use of mounds or abrupt elevation changes can define distinct zones within the play space. They can also discourage overlap of activity areas. Terracing is another effective method of creating distinct play areas, but should be approached with caution to avoid creating long-term maintenance problems. Here, a general rule of thumb is that a 33% rise is the maximum limit for effective operation of tractor-drawn and motorized maintenance vehicles. A 33% rise is one where you plan for 90 cm (3') of horizontal run for every 30 cm (1') of vertical rise.

Drainage

Providing adequate drainage is primarily a construction challenge. Even so, you should review the natural drainage on the site during the site planning stages. A visit to the site will show you where depressions, eroded slopes and areas of impervious soil may cause drainage problems.

Play spaces which have not handled drainage well are troubled by standing water at the base of play equipment. You can avoid this problem - which is hard on play equipment and on children's clothing - by planning the site drainage to ensure water runs off into catch basins, into dry wells or away from the play area.

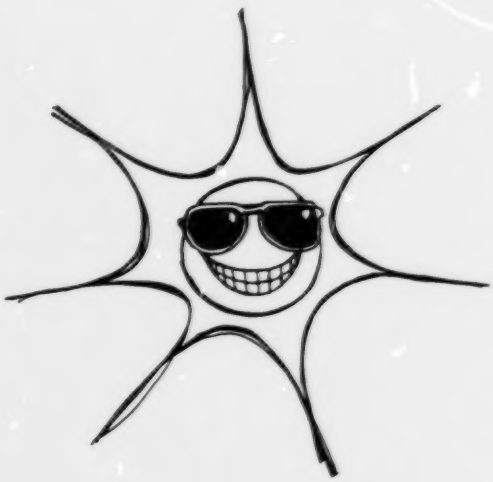
3. Climate

In planning, it is important to consider the different activities that will take place during all the hours of the day, and throughout all the seasons of the year. Alberta's climate is characterized by extremes - occasional intense heat in summer, more frequent intense cold in winter. To ensure the comfort of your "clients" you should spend time in planning to minimize the negative effects, and getting the most from the positive effects of climate.

Some of the natural elements to consider are the effects of sun and wind, of rain and snow.

Sunlight

One of the main concerns is the effect of the sun on the play space. Visit the site to see which areas are now exposed to direct and indirect light, and which areas are now shaded. While the sun is usually a friendly companion, it can pose serious problems. Areas which have an emphasis on man-made materials such as asphalt, concrete and steel may become too hot in summer, too cold for comfort in winter.



For this reason, activities should not be organized so they are all in direct sunlight, nor should they be in total shade. Indeed, access to sun is important for sanitary reasons in sand and water play areas. For winter play however, snow mounds and slide hills should face north for better snow retention.

The time of day influences the ages of children visiting the play space. In general, preschoolers visit the play space during the day, until about 3:30 or 4:00 p.m. Older children visit the play space after school, in the early evenings and on weekends.

Passive activities for younger children should be planned in areas with some shade, while activity areas for older children should be in sunny locations.

The site may be enhanced with the addition of shade provided by awnings or platforms, or by existing or planted deciduous trees. These provide shade in summer when the sun travels in a high arc over the area, then lose their leaves in the fall to let the weaker winter sun shine fully onto the area.

Keeping the Heat Off!

How can you avoid the summer heat problem? One way is to minimize the use of man-made, heat absorbing materials such as cast iron, concrete, asphalt and sheet metal. When used, these should be placed in areas which are shaded during hot summer hours. Alternatives include wood timbers and railway ties. These are porous and cooler to the touch. Trees, grass, shrubs, plastics, ropes and wood chips all contribute to a pleasant, all-season environment. Another solution is to incorporate water-play areas, which may be designed to become skating areas in winter.

Wind

While the play space should be designed to allow free circulation of summer breezes, it should also offer protection from the wind in sand play areas. During winter, protection from prevailing winds will be an important factor in encouraging the use of the play space.

As a general guideline, Alberta usually sees north/northwesterly winds in the winter, and southwesterly winds in the summer. However, these patterns vary. Urban areas have wind patterns which are difficult to predict as office towers and buildings alter wind patterns. To be sure about the effects of the wind, conduct a site survey or an informal survey of neighbours well in advance of drawing up firm plans.

If winds are strong enough to pose problems, plans for the play space should include windbreaks. These may be upright structural devices such as fences. Natural windbreaks of trees or landform may also be planned to serve other functional and aesthetic purposes.

PLAY EQUIPMENT

Finally - we arrive at the topic you probably thought would come first! However, you're in for a surprise if you expect to see photographs and illustrations of typical play equipment. You'll find that kind of reference in manufacturers' brochures, or you can obtain detailed drawings for "build-if-yourself" equipment from your recreation office.

Before you reach that stage, though, you'll want to make some important decisions about the kind of equipment you want to see in your play space.

Has your group decided on a traditional play space? Then you may wish to purchase and assemble swings, slides and other traditional kinds of play equipment. If you're part of the growing number of community groups which opt for a more creative play space, you may wish to build the equipment or combine purchased and built items. If you decide to "build it yourself", you'll save money, but you'll need to invest more time. Before you take action on any alternative, consider the following guidelines:

- The number of children that will be using the apparatus at one time.
- The ages of the children.
- The surrounding environment (water, rocks, forests, hills).
- The needs of the children - what do existing parks and facilities offer?
- Are there children in the community with special needs? Which equipment is designed for children with handicaps or other special requirements?
- An area for social interaction - such as a playhouse - should be considered an important piece of play equipment.
- Children between the ages of four and eight tend to socialize. Between the ages of eight and 11 they become more interested in physical activity, then from 11 through 16 they become interested in socializing once again. The play space should be designed with these characteristics in mind. Children will grow from one area into another, and seem to know their own capabilities ...
- Be careful not to plan a play space with so much equipment that the child's imagination is limited.

These considerations will help you answer two specific questions in making a final decision:

1. Capacity: How Many Pieces of Equipment Should Your Play Space Contain?

Because the success of your play space will depend to a large extent on the variety of play experiences it offers, the answer to this question is simple. The play space should contain as many pieces of equipment as you can afford to provide without over-crowding the play area. If your resources are limited now, you may plan the space so that additional play equipment may easily be added at later date. Of course, the number of children

in your community will have a bearing on the equipment you install. Conduct a telephone survey to learn how many children will be using the play space, what their ages are, and what the special requirements are for children with handicaps.

This information can be checked against play equipment capacities in brochures, describing how many children can play satisfactorily at one time on each piece of equipment. Once you know the ages of children, you can also determine the appropriate size and scale of play equipment.

When designing a play space, consider the size of children as they grow from infancy to age six:

- Child's average height: 500 to 1,200 mm (20" to 46").
- Minimum head clearance: 1,300 mm (50").
- Reach above their heads: 150 to 200 mm (6" to 8").
- Seating heights (3-5 years): 300 to 350 mm (12" to 14").
- Table height (3-5 years): 525 to 575 mm (21" to 23").
- Average weight: 5 to 23 kg (11 to 50 lbs).
- Climbing height: maximum 4 m (13') for older children only!
- Slides: slope ratio of 1:1.
- Sand areas: deep enough for digging 450 mm (18").
- Hand gripping surfaces: at least 20 mm (3/4") and not more than 25 mm (1") in diameter.

There is a far greater range in the

physical characteristics of schoolage children (ages from six to 14 years). Generally, children in this age group have an average range in height from 1,100 mm (45") to full adult size. Weight ranges from 22 kg (50 lbs) to full adult weight. Although growth in size and weight varies, 75% of adult height is attained by the average nine-year-old boy and by the average seven-year-old girl.

2. Variety - What Kind of Equipment Should Be Included?

Only your group can make this decision! For guidance, though, remember the different kinds of play described at the beginning of this manual, then review the number of children in your community and their ages. The play equipment should encourage all types of play, by all ages of children. The specific kind of equipment isn't as important as whether it will prove to be:

- Safe
- Durable
- Versatile - offer a range of play experiences
- Practical to construct
- Easy to maintain

PLAY SPACE AREAS

In designing the play space that will meet the needs of your community, you have a limitless range of possibilities. A good starting point is a quick review of which play space areas you wish to include or omit in your plan. The question is one only your group can answer. Selecting areas will require all the insights you've gained in going through this manual, and the knowledge you have of your community's needs. As a guide, the play areas should meet the four main principles of play space planning. They should offer participation, variety, physical comfort and safety.

The play areas should provide:

- Easy access for all children
- Moving equipment
- Changes in level
- Colors and textures
- Natural and man-made objects
- Open and enclosed areas
- Quiet locations
- Private areas
- Sunny areas and shady areas
- Dry areas and wet areas
- Wide pathways for wheelchairs
- Easy access for maintenance

Physical comfort is also important, so the play space should include:

- Water - a drinking fountain and, in some cases, a wading pond
- Shade
- Wind barriers and rain shelters
- Washrooms

- Sitting area and quiet area
- Parking accessibility
- A ratio of elevation appropriate for those in wheelchairs

In developing plans for your play space, be sure to pay special attention to the play area's function, size, and any necessary equipment for special requirements.

1. Play Equipment Area

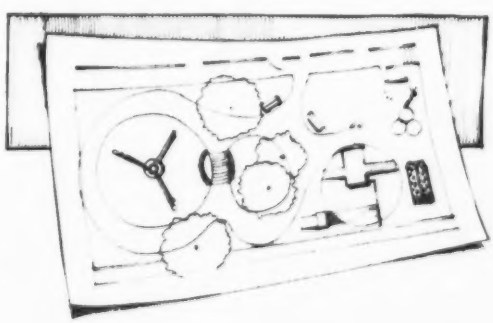
Function: To provide children with an environment for physical play.

Size: From 230 m² (2,500 square feet) to 930 m² (10,000 square feet), depending on the size of the neighbourhood and the types of equipment provided.

Play Equipment: Should provide opportunities for three interlocking kinds of play experiences.

a) Social Experiences: playhouses, group equipment.
b) Physical Experiences: swinging, climbing and sliding equipment, equipment that encourages children to move over, under, around, through and into apparatus.
c) Creative Experiences: equipment without predetermined purpose, such as sand, water and blocks, should be available to encourage imaginative play.

Equipment Placement: Play equipment should be arranged in patterns to encourage activity to flow from one area to another. Carefully-planned space should surround each piece of equipment, to avoid congestion areas where children jumping from one piece of equipment might collide with other children. An impact-absorbing surface (such as impact sand) is required under and around most active equipment such as swings, slides and climbing platforms. Adequate clearance must be provided between equipment and sand area edges. Open space surrounding the play area also permits the children to spread out into other areas, while still being close to the "activity centre".



2. Tot Area

Function: To provide a separate play area for preschoolers with provision made for adult supervision.

Size: From 74 m^2 (800 square feet) to 230 m^2 (2,500 square feet), depending on the number of preschool children in the community and the types of equipment provided.

Play Equipment: Should include sand play and equipment scaled down to the size of preschoolers. Scaled down equipment helps toddlers feel more assured by giving them a sense of having "their own place". It also tends to discourage older children from interfering as it offers them little challenge. (On the other hand, toddlers may be discouraged from using unsuitable equipment by setting the first step too high for their reach!) Equipment which is suitable for toddlers and older children should be located at the midpoint between the tot area and the large play equipment area.

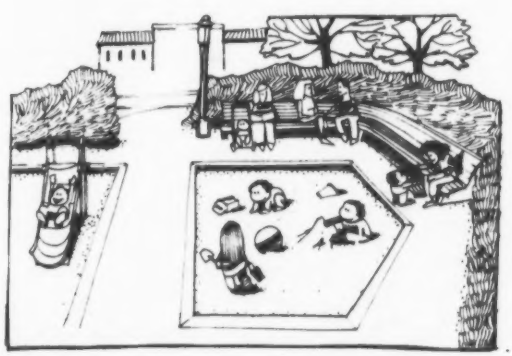
Special Considerations: The tot area should have a close link with or be adjacent to a hard-surfaced area, where children can ride tricycles or bounce balls, and where adults can push strollers. Comfortable, shaded seating offering clear views of all play areas should be provided for adults.

3. Sand Play Area

Function: To provide an area where younger children can safety engage in creative play, both individually and cooperatively.

Size: The size of the sand play area will vary according to the number of young children in the community.

Special Considerations: Sand must be moist and of a suitable texture to hold its shape when moulded and piled. A nearby water source is essential for maximum play value. One or more play tables will provide a flat working surface to enhance sand play. Sand should be at least 30 cm (12") deep, to allow children to make fairly major "excavations" without disturbing the foundation. A good drainage system is important to ensure standing water doesn't accumulate



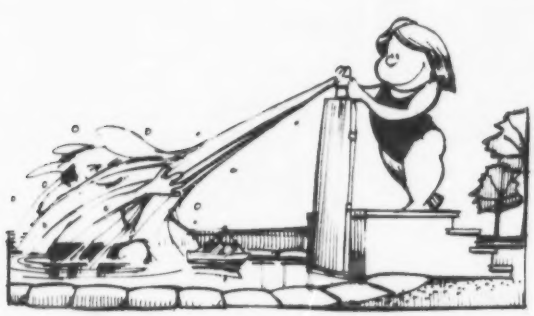
and cause the sand to become sour. The area should be located so that rain and sun can purify all parts of it for at least some parts of the day. Shade trees or other shelter should protect the children from the sun during the hottest hours of the day.

4. Water Play Area

Function: To provide a safe source of creative, social and intellectual play for children of all ages and to add diversity to the play space.

Size: May vary from a simple sprinkler system to a pond or pool, depending on the site size and resources available.

Special Considerations: Play use of water might include being dammed, redirected, mixed with sand or earth, used to sail toy boats or for child-sized rafts. Water play areas that perform some or all of these functions have higher play values than sprinkler systems that simply permit children to get wet or pools that permit splashing. Play streams should be incorporated into the total site plan to provide a pleasing area for all ages. The water source for a play area may have a control tap to prevent unsupervised use, and may be designed with a valve system to fill and drain like a bathtub each day. Fountains used for decorative purposes may also be used for play with minimal adjustments; the water basin height may be designed to provide easy access to children in wheelchairs.



5. Mounds/Amphitheatre

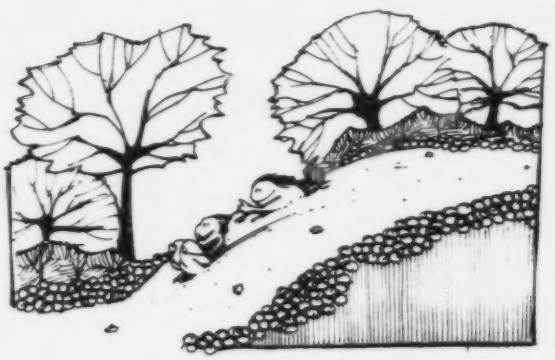
Function: To provide variations in topography and encourage activities such as climbing, rolling, tobogganing and playing on different levels. Mounds are also useful in separating activity areas, in providing sound and visual barriers, and providing simple spectator seating.

Size: A mound height between 2 m and 3 m (8' to 10') is usually adequate for most play purposes. For visual barriers and smaller sites, mounds may be as low as 1 m to 1.5 m (3' to 5'). A mound designed for tobogganing should be adjacent to an open area, with a safety fence or reverse mounding at the base of the run to prevent children from sliding onto roadways. A series of interconnected mounds are more usable than a single, large mound.

Play Equipment: The good old-fashioned free-standing slide is far safer when set into the side of the mound! Children can't dangle from the top over the steps, and any who are tempted to run up the slide (what child isn't?) risk only a gentle tumble onto the grass. You may wish to consider a contemporary, wider slide for the mound area, or several traditional narrow slides. Remember though, that the slide should face away from the hot afternoon sun. Tunnels may add an exciting dimension to the mound area. Reinforced concrete sewer pipes or steel culverts with protected edges

provide safe and enticing tunnel areas. A layer of sand on the tunnel floor makes crawling easier. A climbing wall may be built into the side of the mound to add another play option and to serve as a retaining wall. Logs, set vertically at staggered heights, provide all ages of children with a safe climbing challenge.

Special Considerations: Grass has a tough time growing beside busy hill-slides. The mound area is likely to receive intensive use and may require additional maintenance costs.



6. Adventure Area

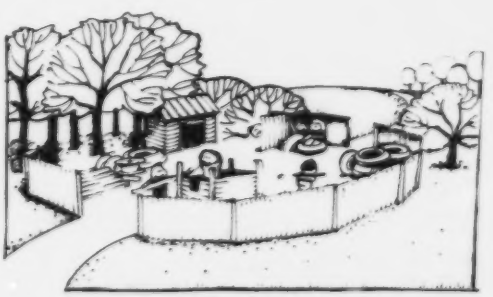
Function: To provide an area where children will enjoy the creative adventure of "learning by doing". Here they initiate and participate in self-directed play, using a variety of materials and doing a range of projects with the guidance of an adult leader.

Size: While a large, natural area is best, an area the size of a hockey rink will suffice where space is limited. A total minimum area of 1,000 m^2 (1/4 acre) should be set aside for the adventure area.

Site: The most stimulating play environment would ideally be a natural area with trees, hills and water. This environment may also be created through landscaping and planting. The area may be part of a comprehensive play space design, or stand alone as an independant play area.

Play Equipment: Lumber scraps, nails, hammers, saws, ropes and other supplies for such activities as digging, swinging from trees, building huts, forts or caves, and supplies for camping and other adventures.

Special Requirements: A lockable shed or storage building will be required for the materials and tools. Space should be provided for scrap piles. Supervision for any of the activities involving tools is essential. The area should be fenced in order to contain the children, to close off the area when not supervised, and to conceal the noisy or unsightly elements of the area. Safety equipment includes fire extinguishers, a first aid kit and an emergency telephone. Combining the fence, mound and planting will result in a good security barrier which is also attractive. The gate should be wide enough for trucks delivering supplies to enter. Optional: Office for play leader, playroom, washrooms.



7. Quiet Retreat

Function: To provide a secluded area where a child may be alone and play quietly.

Size: A relatively small area will be adequate, as long as it is separated from active and social play areas with barriers such as rocks and boulders, shrubs or trees.

Equipment: The quiet area may feature a bench or table of appropriate scale. A large, hollow log or length of pipe provides a private "retreat" for cognitive play.

Special Considerations: The quiet retreat should be removed from noisy activity, located near a passive landscaped area or next to the adult seating area.

8. Open Green Space

Playing Fields

Function: To provide a clear area where children can engage in unstructured physical play activities - running, jumping and rolling - or structured activities such as informal team games. This area will also be used for organized ball games which appeal to teens and adults.

Size: Available area, kept free of arbitrary planting except around the perimeter. For organized ball games, the fields must be level. Dimensions should accommodate the kinds of activities which will most commonly take place on them. (For specific dimensions, refer to Play Space Construction or Tennis Courts and Outdoor Rinks, two of the manuals in the Focus Series, or contact your local recreation office.)

Orientation: For proper orientation to the sun, soccer fields should run north/south. Baseball backstops should be located in the northeast corner.

Surface: A hardy, well-drained grass surface makes an excellent play surface and is visually pleasing. Plants or shrubs around the area's borders define the area and prevent spill-over into formal play space areas.

Equipment: Hardware for removable nets/goal posts for ball games and goal post sleeves may be countersunk below the grass surface. When needed, posts for

games of touch football or nets for badminton may then be easily erected.

Spectator Seating: As an option to building conventional wooden bleachers, consider creating earth mound 1 m to 2 m (3' to 6') high with slopes of 4:1.

Park Area

Function: While not an essential component of a play space, a park area can provide a setting for a wide variety of recreational activities for the whole family. Picnics, family games, games for senior citizens, arts and crafts and other passive activities enhance the play space use.

Size: Depends on the nature of the site and the needs of the community.

Equipment: Should include picnic tables and benches to encourage adult participation. May also have horseshoe pitches, an area for shuffleboard, and other facilities for wide-ranging appeal.

Special Considerations: For comfort and privacy, this area should be well treed and landscaped. If size warrants, walking paths may connect all areas. These paths are often best left till last. After the area is constructed, finding the "preferred lines of travel" is a simple matter of seeing where trails have been established, then building paths along the trails.

9. Natural Area

Function: To provide children with the opportunity to explore and experience an "untouched" environment, to provide a high level of creative and intellectual play.

Size: Depends on the available site size: the natural area on the play space site is preserved and made accessible to children.

Site Considerations: To discourage abuse, the area should be kept clean and accessible. Underbrush should be cleared, unhealthy trees selectively removed, ponds cleaned out. Marshy areas may be preserved for environmental study or drained to make the areas more playable. Streams may be preserved and made more accessible by moulding the ground and redirecting the flow, using stones, gabion baskets (wire baskets filled with stones) or concrete retaining walls. Involve children in planting trees and creating paths to improve their environmental awareness and sense of responsibility.

Equipment Options: Simple physical play equipment such as ropes, climbing frames or treehouses may be added to the natural area. Picnic sites, with tables and barbecue grills, may be used to enhance a large site. Natural areas make excellent locations for children to keep small animals in cages, in designated and secured areas.

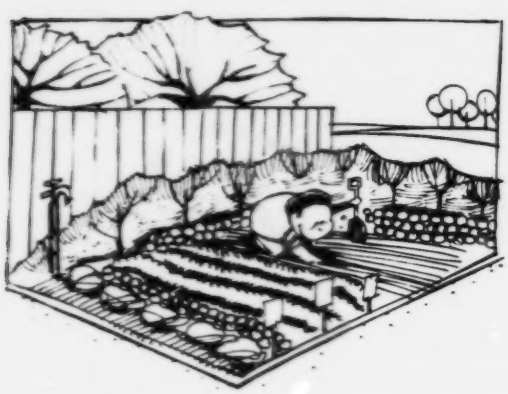
Wild flowers, flowering plants and other interesting features should be introduced where possible.

10. Garden Area

Function: Watching "their own" plants grow and bloom can be a meaningful and rewarding experience for children of all ages, particularly those living in densely populated urban areas where gardens at home are rare.

Size: Will vary according to the number of children participating. Each child may have a small plot of his or her own, or a garden may be planted and cared for as a group cooperative effort.

Special Considerations: A play leader should supervise planting activities and guide younger children. Individual areas may be marked with low fencing or with small stones. Stepping stones may be placed throughout the garden to avoid trampling plants. The garden area should have good, rich, dark soil, be exposed to sunlight, and be close to a water source.

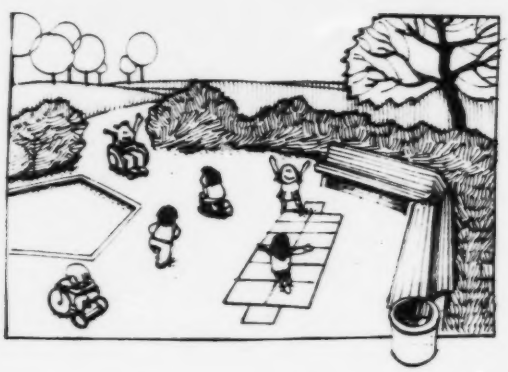


11. Paved Area

Function: To accommodate games and sports activities such as basketball, volleyball and tennis for older children and for the teen group. Younger children will also use the area for skipping, bouncing balls, playing hopscotch and riding tricycles, bicycles or skateboards. It is an ideal area for social events such as outdoor dances. During the winter, this area may be used for hockey and skating rinks. Free-skating areas may be created with a serpentine series of small ice areas, separated by mounds or islands to prevent children from playing hockey.

Size: Total area may range from 230 m^2 (2,500 square feet) to 744 m^2 (8,000 square feet). (Again, for specific dimensions, refer to Play Space Construction or Tennis Courts and Outdoor Rinks, two of the manuals in the Focus Series, or contact your local recreation office.)

Surface: Asphalt, shale, concrete or interlocking pavers. If the site is flat, the surface may be grass if it will be well-maintained, and if games which require bouncing (basketball) are not planned.



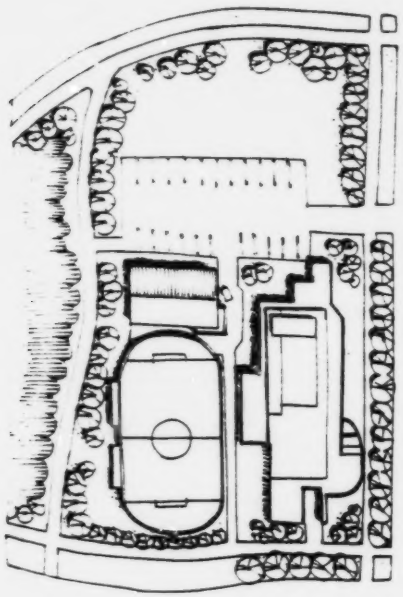
12. Service Building

Function: To provide equipment storage, changing and washroom facilities, a first aid centre and administration area.

Size: Variable, depending on the requirements of the play space.

Location: The service building should be centralized within the play space, and offer direct service access for vehicles as well as economical water and power

connections. It should also provide a vantage point for the supervision of as large an area as possible. Where the play space design includes a skating rink, the service building should be located between the parking area and the rink. Where two rinks are planned, the building should provide good access to both rinks.



13. Your Choice!

Remember that these descriptions give general outlines of play space areas which are popular in most Alberta playgrounds. But that shouldn't hold you back if you have a vision of a new kind of play area. Do you wish to encourage children to participate in impromptu plays? An open-air theatre is easy to construct using landform as a natural amphitheatre area, with or without a wooden platform stage at its base.

Do you want to encourage adult participation? Include a giant-sized cement or wooden checkerboard as part of the park area. Let your group decide what kind of play areas they would like to see. Don't feel limited to "doing what's been done before"!

As long as the play spaces are developed to encourage active, quiet, creative or social play ... and meet the needs of your community ... there are no limits to your plans.

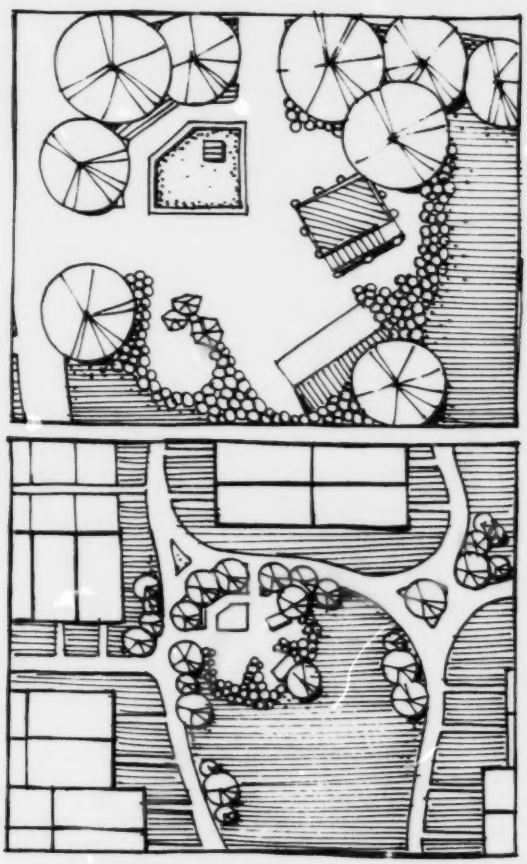
After all, the choice is yours!

For more specific information on construction, maintenance and safety of play spaces and play equipment, be sure to obtain the three manuals in the "Focus" series which deal with these topics. Talk with the recreation planner in your municipality, or contact an outdoor recreation facilities consultant at Alberta Recreation and Parks.

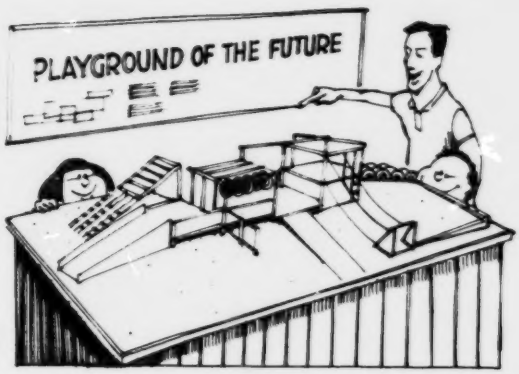
MOVING TO THE DRAWING BOARD: DESIGNING THE PLAN

It's easier to make changes and correct errors with an eraser, rather than with an earth mover. So, before your play space takes shape on the site, it must take shape on the drawing board! Here you have two options to choose from. You can retain a professional to develop the site concept, or your group can design it. While Alberta Recreation and Parks consultants can provide you with advice and guidance, they normally do not provide design concept plans.

If you decide to retain a professional designer (a wise move, unless a member of your group has formal training and experience) you should invite him or her to take part in the preliminary planning sessions. This will give the designer an understanding of your aims and objectives, both important in developing a plan that meets your needs.



If you decide to undertake the design yourselves, the first step is to measure the play space site and develop a scale drawing called a Base Plan. A scale of 1:50 metric (1/4" to 1') is a workable scale. All existing features such as trees, boulders, hills, streams, fences, roads, utility lines and structures should be drawn on the plan. Desired play space areas should then be outlined to scale, revised and modified as necessary. Next, you add the various pieces of equipment to the base plan to produce a site plan or play area concept. Paper templates and models are handy and tidy ways to experiment with equipment placement. To make templates, each piece of equipment selected for the play area should be drawn to scale on posterboard or heavy paper, cut out, and placed on the base plan. Dimensions of equipment may be determined by checking in manufacturers' catalogues, or by measuring equipment on existing play spaces.



For even greater clarity and accuracy, you may wish to build a three-dimensional model. The base may be a piece of plywood, fiberboard or cardboard. Graph paper may be taped on the base for accurate scale. First, construct and position natural features such as hills, trees and permanent structures. Then add models of equipment. Models may be built from scrap materials - sand and white glue; cardboard and balsa wood for climbing structures; strips of cloth, lifesavers candies

for tires; wire, string cardboard cylinders for tunnels, cardboard boxes for buildings; plastic plants for shrubbery; fine screen wire for fencing and play dough for tree trunks and boulders.

These templates or models may be moved around on the base to adjust positioning until the ideal locations are finalized and approved by the group. Then draw the final positioning of equipment pieces and the configuration of play spaces on the base plan. You have translated your group's vision of the play space into the "Play Space Concept Plan"!

SUMMARY: PLAY SPACE PLANNER

If you've read all the way through this manual from the beginning - and even if you've skipped around from section to section - you'll have realized that planning the play space is a logical, step by step process. The following summary outlines the major steps in this process.

Remember that this is only one way in which the planning process may unfold. As your project takes shape and your vision comes into focus, you may well approach the challenge from a totally different perspective.

That's only natural! But, as you follow through this recap of the major steps, you'll see that the two essential elements are the involvement of enough people to successfully plan and implement the project - and clear lines of communication between everyone.

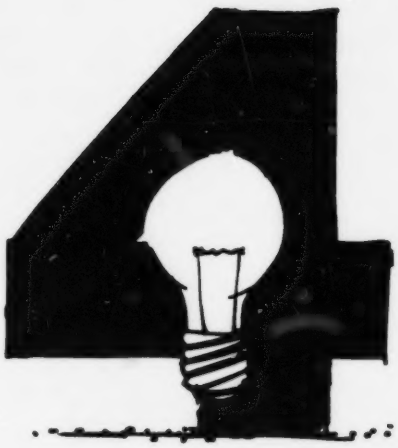
Step One: Accept

You decide that your community has a need for a new or improved play space. You accept the task as a challenge.

Step Two: Organize

You approach others, and form a planning committee to seek out

information on play space design. You learn about the concept of play, the types of play, and the types of play spaces. You consider such options as developing the play space as a community project, or assigning the project to a professional. You choose a leader, approach the recreation board in your area to find out what assistance is available. You go out into the community to learn what all your client groups (especially children) would like to see in their play space.



Step Four: Create

You tour possible sites and select the location which has the most potential. You talk with neighbouring residents and meet with nearby merchants to secure their approval and support for the play space. You talk with children to learn what they'd like to see. You have a brainstorming session to get all your ideas down on paper. You then draw up a list of all suggestions and creative ideas.

Step Three: Define

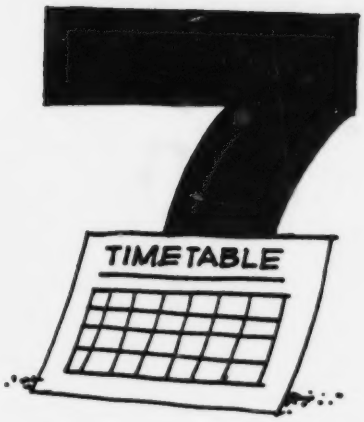
You develop an objective, then expand your planning committee by approaching people in the community who would like to help achieve the objective, and have an interest in the project. You learn what skills each person has - who will be able to help plan and develop the project, who can provide materials, who can help with fund-raising, and who is enthusiastic about being on a work party.

Step Five: Select

You incorporate all the best ideas in your play space program, which identifies your priorities. You draw up a preliminary budget for the play space, and review funding needed.

Step Six: Implement

You are ready to develop the play space plan. You assign a team of people to investigate the in's and out's of fund raisings and applying for grants, site selection, play space construction and maintenance. They pick up the "Focus Series" brochures on Play Space Construction, Play Space Maintenance and Play Space Safety, then arrange for municipal or provincial recreation planners to meet with your group and assist in developing the play space concept plan. You also obtain information and costs on equipment and supplies from manufacturers if necessary.



Step Seven: Evaluate

You draw up a timetable for the project, identifying dates for the development and approval of the comprehensive play space design, for the final budget to be approved, for funding to be in place, for work parties to begin and complete construction. Where there are conflicts or problems, you make necessary revisions to the plan.

WHERE DO YOU GO FROM HERE?

The next steps are clearly to undertake the actual designs, and establish a firm budget. You'll want to contact play space designers, play space contractors, builders and landscape architects. When selecting and working with consultants, there are two firm rules:

- Obtain competitive proposals from at least three sources.

- Put everything in writing.

Obtaining three (or more) competitive proposals allows you to select the consultant or firm with whom you feel most comfortable, and whose costs are in line with your resources. Your requirements should be identified in writing and in detail. List and describe all products, services, materials, labour and professional time you will expect to receive. Then go over your requirements in a briefing session, amending the written document as necessary.

Proposals and cost estimates should be submitted to you in writing and in detail. Again, go over these with the supplier and make any necessary amendments in writing. After you've selected the consultant and contractors, have a final briefing session to ensure all areas in question are resolved in advance.

Additional Resources

You'll find that a number of resources are available to you, both within your municipal office and from the Outdoor Recreation Facilities Section of the Alberta Recreation and Parks Community Recreation Branch.

In addition to having audio/visual presentations and brochures on equipment, suppliers and sources of funding, we have qualified, helpful people ready to come out and meet with your group and offer good, sound advice. To get in touch with a recreation planner or a play space consultant, call your municipal office or contact Alberta Recreation and Parks.

NOTES

THE PLANNING CHECKLIST

As an aid for your group, this summary outlines the basic points to consider in the planning and design process. You may wish to tear it out and use it as a guide for meetings throughout the planning and design process:

1. Goals and Objectives

Does the written proposal answer the three fundamental questions:

- What is the purpose of the project? YES NO
- Who is it for? YES NO
- Why are we doing it? YES NO

2. The Planning Committee

Are all "client groups" and interest groups represented on the planning committee? YES NO

Are the children involved? YES NO

3. Terms of Reference

Has thorough consideration been given to the following issues:

- What facilities are really needed? YES NO
- What resources are available? YES NO
- What regulations must be followed? YES NO
- Who must give the grant approval? YES NO
- Who assumes liability? YES NO

4. Information Collection

Has every effort been made to involve the entire community in the project?

- Questionnaires? YES NO
- Presentations? YES NO
- Interviews? YES NO
- Workshops? YES NO
- Public Meetings/Discussions? YES NO

5. The Site Program

Does the list of needs in order of priority reflect the needs of the entire community? YES NO

Has construction been phased over a number of years to fit community resources and abilities? YES NO

6. Inventory Resources

Have all potential sources of funds and materials been identified and contacted? YES NO

Have appropriate tasks been assigned to volunteers? YES NO

7. The Site

Have all the potential problems and conflicts been identified and resolved? YES NO

Are current user patterns of the site and adjacent facilities understood? YES NO

8. Developing the Plan

Have park planners, recreation consultants, municipal representatives or landscape architects been consulted? YES NO

Has a formal plan been developed? YES NO

Are the four kinds of play represented on the plan? YES NO

Does the plan incorporate participation, variety, physical comfort and safety? YES NO

Has a drawing or model of the plan been completed? YES NO

9. Implementing the Plan

Have approvals been granted by all concerned authorities? YES NO

Does the community have the skills, resources, and enthusiasm on an all-volunteer basis? YES NO

Should a contractor be hired? YES NO

Are the work sessions and tasks of the volunteers clearly identified and organized? YES NO

10. Review/Evaluate/Maintain the Site

Has the plan been reviewed and evaluated to identify improvements needed to respond to new community needs?	YES	NO
Is the community actively involved in the maintenance of the site?	YES	NO
Will the site be continually monitored to measure the effectiveness of the design?	YES	NO

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